Claims

1. A heat exchanger, especially for motor vehicles, having flat tubes (2) through which a first fluid (FL1) can flow and which can be externally exposed to a second fluid (FL2) and which are arranged fundamentally parallel to one another and transversely to the direction of flow (S2) of the second fluid (FL2), and which are spaced apart forming flow paths for the second fluid (FL2) passing through the heat exchanger, cooling fins being arranged in the flow paths, which in each case extend between adjacent flat tubes (2), characterized in that multiple corrugated fins (3), which are arranged in series in the direction of flow (S2) of the second fluid (FL2) and laterally offset in relation to one another, are provided as cooling fins.

2. The heat exchanger as claimed in claim 1, characterized in that the surfaces (5) of the corrugated fins (3) are arranged fundamentally parallel to the direction of flow (S2) of the second fluid (FL2).

3. The heat exchanger as claimed in claim 1 or 2, characterized in that multiple offset corrugated fins (3) are similarly shaped.

4. The heat exchanger as claimed in any one of claims 1 to 3, characterized in that at least one of the corrugated fins (3) has gills (7) for directing the second fluid (FL2).

5. The heat exchanger as claimed in claim 4, characterized in that all gills (7) of a fin section (4b) bounded by two flat tubes (2) are angled in the

same direction relative to the direction of flow (S2) of the second fluid (FL2).

6. The heat exchanger as claimed in claim 5, characterized in that the gills (7) of two successively offset fin sections (4b) are angled in the same direction.

7. The heat exchanger as claimed in claim 5, characterized in that the gills (7) of two successively offset fin sections (4b) are angled in opposite directions.

8. The heat exchanger as claimed in any one of claims 1 to 7, characterized in that two successively offset fin sections (4b) are fundamentally parallel to one another.

9. The heat exchanger as claimed in claim 8, characterized in that the fin sections (4b) are arranged fundamentally perpendicular to the flat tubes (2).

10. The heat exchanger as claimed in any one of claims 1 to 9, characterized in that the corrugated fins (3) extend for an equal or similar distance in the main direction of flow of the second fluid.

11. The heat exchanger as claimed in any one of claims 1 to 10, characterized in that multiple corrugated fins (3) arranged in series are formed from a common strip (8).